Are Ghosts Real Stuff?

AFTER all, it seems that there really are such things as ghosts. Science at last accords them a somewhat belated recognition—though, of course, refusing to acknowledge that they are supernatural. On the contrary (according to the newly accepted theory), they are to be classed as natural phenomena, chemical in character.

Why is it that ghosts, since time immemorial, have been so intimately associated with graveyards? Why is it that the dead in cemeteries are so universally believed to "walk" at night? Why, when specters walk, are they so generally accustomed (in popular belief) to be sheeted—that is to say, clad in winding sheets—though nowadays people are nearly always buried in ordinary clothing?

These questions, and others equally interesting, in regard to phantoms, science is now for the first time prepared to answer. As to the first point, the reputation graveyards have for being haunted is attributable to the fact that ghosts, of the kind now recognized as real, do actually and not infrequently walk about in such places. They are seen at night (rather than in the daytime) because their chemical constitution is such that they can not be visible except in darkness. Finally, they are (or rather, appear to be) "sheeted" for the reason that the gases of which they are composed—here we begin to come to the explanation—flicker and waver in a fashion suggestive of garments.

For some reason not easy to explain, the dead are supposed to be hostile to the living. Few people there be who would not run, terror-stricken, from a ghost, if they thought they saw one. But, making all allowance for this fact, and for the influence of imagination, it still seems strange that the conviction that a graveyard is a dangerous and dreadful place to venture into at night should be so widespread even among educated persons. Nobody objects to entering, or wandering through, a burying ground in the daytime—rather the contrary, indeed, most cemeteries being attractive spots. But at night it is different.

The real cause of this fear lies in the circumstance that phantoms, for reasons presently to be made clear, are, and always have been, haunters of graveyards. People have been frightened by them time and time again, in such places. Other persons, who have not seen them, and who have professed disbelief, have nevertheless been influenced by testimony of the sort. Not often has anybody, witnessing a phenomenon of this kind, attempted to investigate it. Much safer does it seem under such circumstances to take to one's heels.

Nothing but the skepticism of science can fortify a man against the terror of such an experience. But, as it chanced, some years ago, a government anthropologist, of high reputation (now connected with the department of agriculture), Prof. W. J. McGee, had an opportunity to study this matter at first hand. He was living at the time in a small town, in the middle west, where, only a few weeks earlier, a burglar, engaged in the exercise of his hazardous profession, had been shot to death. Hastily buried, he might have been expected to refrain from disturbing the community further—instead of which, he proceeded to "walk," his ghost being repeatedly seen by a number of reliable witnesses, stalking about the potter's field where his grave was located.

Professor McGee, being appealed to on the subject, in his capacity of scientific investigator, finally consented to look into it. He went to the potter's field on a moonless night, sat down a short distance from the grave (carelessly left only half filled up) which had been pointed out to him as that of the late burglar, and proceeded to wait for something to happen. Nothing did happen for quite a while, and he was just making up his mind that he had come on a fool's errand when he descried a dim light immediately over the grave. As he gazed it became steadily more vivid and distinct, appearing to hover in the air—a flame-like, restless thing, about the height of a man and rather strikingly resembling the popular conception of a ghost.

When he attempted to approach the strange object it disappeared. He went back to the place where he had been seated, and it became visible again. Every now and then a gust of wind would seem to "blow it out," and it would vanish for the moment, presently reappearing. Apparently its movements were caused by the breeze, its wavering suggesting drapery. But presently the professor saw another ghost, of similar aspect, not far away, and then another and another, until there were at least half a dozen. It was not surprising that the townspeople (crediting a report to the effect that the burglar's wife and children, deprived of the family breadwinner, had died of starvation) should declare that these unfortunates came at night to dance over the graves.

Professor McGee found it impossible to get within a dozen feet of the phantoms, which would always vanish on his near approach. He is unable to explain this circumstance; but he became convinced through careful study of the apparitions that they were nothing more nor less than gaseous emanations of a self-luminous character. In all probability they were largely composed of phosphorus, derived from the dead bodies of people buried in the potter's field.

Here, then, is an explanation of the reason why ghosts haunt burying grounds. They are in fact a natural (not supernatural) product of graveyards, as one might say. In the body of an adult human being there are 55 ounces of phosphorus, seven-eighths of this quantity being contained in the bones (where it goes to make phosphate of lime), while there are 4½ ounces in the red corpuscles of the blood, and nearly half an ounce in the brain.

The processes of decay set this phosphorus free in the gaseous state—under which circumstances, atmospheric conditions being favorable, it is liable to produce, in the night time, effects such as those above described. As is well known, decomposing vegetable matter in swampy places yields an emanation that is highly phosphorescent, causing the phenomenon termed "will-o'-the-wisp," or "elf fire." It is not reasonable to suppose that there is some relation, in respect to cause, between the will-o'-the-wisp (which occasionally misleads unfortunate travelers into boggy places) and the "corpse candles" said to be often seen moving about in the mysterious and awesome darkness of cemeteries? The "sheeted dead" are alleged to carry these candles in their ghostly hands when they walk about among the graves at night.

The skeleton of an adult human being contains about four pounds of the metal calcium. This, in fact, is the most abundant metallic element of the body structure. In the fluids of the body, also, there is a good deal of it. But calcium and phosphorus, when combined, form a self-ignitable substance. Indeed, water will set it on fire. If a bit of phosphide of calcium be dropped into a saucer of water, it will instantly burst into flame, on which account, in the laboratory, to protect it from dampness, it has to be kept in an air-tight jar.

Three other self-ignitable substances, all of them metals, are contained in the human body. One of these (about two ounces in quantity) is the silvery-white magnesium—of familiar use for flashlight purposes by photographers. The other two are sodium and potassium—rather more than five ounces of each. A piece of the former, if thrown into water, bursts into a rosy flame, and swims about violently on the surface until burned out. The latter is likewise set afire by contact with water, on touching which it explodes like fireworks, throwing a shower of sparks into the air. As for magnesium, it is so fiercely combustible that it has to be kept tightly corked in glass bottles, to prevent it from igniting.

Thus is appears that the human body contains, in considerable quantities, quite a number of substances which are self-ignitable, and fiercely so, on coming into contact with water. The marvel is that we refrain from going off by spontaneous combustion, so to speak, while we are alive. When burned, these substances, of course, convert themselves into gases, which are luminous. Under favoring graveyard conditions (the processes of decay going on very gradually), they pass off slowly, by evaporation, and not in any such way as that above described. They present themselves to the view, in darkness, as mere chemical emanations—luminescent, blown about by light airs, or dissipated entirely for the moment by a passing gust of wind. In all probability they consist mainly of phosphorus.

One cannot capture a ghost of this kind. It cannot be trapped in a box or a bottle and conveyed to a scientific laboratory for examination or analysis. Hence it is likely that the true composition of phantoms will forever remain as much a mystery as it is today. But (supposing the theory here set forth to be correct) it is a comfort to know, in a general way, what graveyard spectres are made of.

When people are murdered, and their bodies (as often hapens) are buried in cellars or other damp places, their ghosts, for the chemical reasons already given, are particularly likely to walk. So says Prof. Charles E. Munroe, a famous chemist, and dean of the George Washington university, who even goes so far as to declare that he could at a pinch produce in his laboratory phantoms in all important respects corersponding to those which graveyards are popularly supposed to manufacture.

Speaking Over the Wire

Some Pointers to Be Remembered by Those Who Are Users of the Telephone.

Most men—and women—use more nervous force in speaking through the telephone than would be needed to keep them strong and healthy for years.

Nature knows no strain. True science knows no strain. Therefore a strained, high-pitched voice does not carry over the telephone wire as well as a low one.

Impatience, rudeness, indecision and diffuseness blur communication by telephone even more than they do when one is face to face with the person talking.

It is as if the wire itself resented these inhuman phases of humanity and spit back at the person who insulted it by trying to transmit over it such unintelligent bosh.

To a demanding woman, who is strained and tired herself, a wait of ten seconds seems ten minutes. I have heard such a woman ring the telephone bell almost without ceasing for 15 minutes. I could hear her strain and anger reflected in the ringing of the bell. When finally she "got her party" the strain in her high-pitched voice made it impossible for her to be clearly understood. Then she got angry again because "central" had not "given her a better connection," and finally came away from the telephone nearly in a state of nervous collapse, and insisted that the telephone would finally end her life. I do not think that she once suspected that the whole state of fatigue which had almost brought an illness upon her was absolutely and entirely her own fault.—Annie Payson Call, in Nerves and Common Sense.

New Phase of the Moon.

"See, papa—see!" exclaimed a little prattler, pointing toward the moon which, for some moments, had been hidden by a cloud; "the moon is open again."

Enjoyed It.

"Did you enjoy your vacation?"

"Best in the world."

"Where'd you go?"

"My wife spent a month with her folks."

JESUS IN GETHSEMANE

Sunday School Lesson for Nov. 20, 1910

Specially Arranged for This Paper

Lesson Text—Matthew 26:36-56. Memory verses, 38-39.

Golden Text—"The Son of man is betrayed into the hands of sinners."—Matt. 26:45.

Time—Between midnight and 1 o'clock, Friday morning, April 7. The morning of the day of the Crucifixion.

Place—The garden of Gethsemane, on the lower slope of the Mount of Olives, opposite Jerusalem.

This lesson is full of sweet solemnity. When we enter the garden of Gethsemane we hear the voice that came to Moses at the burning bush: "Put off thy shoes from off thy feet; for the place whereon thou standest is holy ground."

We trace the walk of Jesus from the upper room to Gethsemane, the route of the officers and soldiers from Castle Antonia, and the return with Jesus as a captive.

The word "Gethsemane" signifies "an oil press," of which there were certain to be several in a locality then covered, as Mount Olivet was, with olive trees. John calls it a garden. "An eastern garden differs from ours, in that it is chiefly filled with fruit trees and fragrant shrubs, rather than with flower beds; and shade, not order or bright colors, is what is chiefly studied in its construction." The garden was nearer the Kidron, which ran between Jerusalem and the Mount of Olives.

From the fact that "Jesus ofttimes resorted thither with his disciples" (John 18:2), it is probable that it was a suburban pleasure ground, or belonged to some friend of Jesus who gave him the free use of it during his stay.

He took with him Peter and the two sons of Zebedee, James and John. These were the three who had seen his glory on the Mount of Transfiguration, and were best prepared to sympathize with him. These were to watch and pray. They were to watch with him, in sympathy with him, and against the same temptations.

In this hour Jesus needed human sympathy, even while he "must tread the winepress alone." Three times he went to them during this season of prayer. The more loving the heart, the more helpful is fellowship and sympathy. Every wise person accepts of all the sympathy and help he can get. To throw this away is to reject one of the best aids God has given us.

"Jesus was in the prime of manhood; life was just opening before him; his soul was eager for work, and conscious of rare capability to perform it; his death was the end of all human hope of achievement." His earthly career, in this dark hour, may have seemed to be a failure, if the future was veiled from his vision. Only a few disciples, instead of a glorious kingdom, and these few about to forsake him! Where were the fruits of his life? It was his hour of darkness, with the future veiled from his eyes with its resurrection and ascension, and himself King of Kings and Lord of Lords. This required the utmost heroism of faith.

Nevertheless not as I will. Not as seems desirable now. But as thou wilt. What in your loving wisdom you see to be wise and best. This is my prayer and desire. I do not merely submit to your will, but desire it, pray for it. "Underneath that awful agony there lay, millions of fathoms deep, unmoved and immovable, the intense desire that his Father's wish and will should be done."—Morison. This prayer, "Thy will be done," contains the essence of faith; a faith that expects an answer.

"Thy will be done" means far more than merely enduring the suffering God sends. It means doing his will in our business, in our homes; everywhere living according to God's laws and principles. It means carrying out his plans for the redemption of men.

The prayer was answered through the strength given him to drink the cup, and change it into a cup of blessing. It was answered in the same way that God answers our prayers, as God answered Paul's prayer that the thorn in his flesh might be removed.

God answered Jesus' prayer by giving in a better form than the one in which the petition was stated, the soul of his prayer, the things that in his deepest heart he wanted. If clearly before the vision of Jesus there had appeared two choices, the one of escape from the cross, but with that also the failure of his mission, the triumph of evil, the loss of unnumbered souls, no crown, no glory, no abiding on the right hand of God; and the other choice, that of the cross and its agony, but with it also the redemption of the world, the ineffable glory of God, the joys of millions of the saved, the crown of triumph over evil—who doubts which would have been his real, innermost prayer? His prayer was answered, for the cross was changed to a crown, Gethsemane into paradise, death into immortal glory.

Lo, Judas, one of the twelve, came. He knew where he would be likely to find Jesus, because Jesus was accustomed to resort to this garden with his disciples. And with him a great multitude, including a band of Roman soldiers, Jewish officers, captains of the temple police, chief priests and elders, and their attendants, such as Malchus, followed by a multitude of people, with swords and staves, lanterns and torches and weapons. Judas betrayed Jesus with a kiss. The Greek means "kiss again and again," "kiss tenderly." Later Judas overwhelmed with remorse ended his life.

HIS LIVELIHOOD AT STAKE

Certainly Candidate for Governor Could Not Expect to Get That Vote.

An incident in which former Gov. Odell of New York figured as the victim was told by Col. James Hamilton Lewis at a recent banquet.

"When Gov. Odell was last running for office," said Col. Lewis, "there had been a great deal of talk about Niagara falls and the electrical power that could be conferred on all parts of New York. One day an old negro halted Mr. Odell and said:

"'Mr. Odell, is yo' runnin' for gov'ner, sah?'

"'I am,' answered the candidate.

"'I guess yo' want my vote, den,' said the old colored man.

"'Well, I would like to have your vote, Zeb. I have known you for so many years.'

"'Well, I jist want to ask you a question, Mr. Odell, befo' I give mah vote to you. Are yo' for electric lights in dis town?'

"'Well, Zeb, I am for all modern improvements,' said Odell, with a slight flourish.

"'Well, sah, I cain't vote for you,' said Zeb with firmness. 'Yo' done forget dat I is a lamp lighter.'"

Mutual Expectations.

A notoriously close-fisted man was taking his golfing holiday in Scotland, where he hoped to improve his game, and, by driving a hard bargain, had managed to secure the exclusive services of a first-class caddie, who was known to be a very good player. "Mind, now," said the ambitious southerner, "I expect to receive some really good tips from you during my stay here, you understand?" "Aye," replied the Scotsman, hitching up the heavy bag, "an' Ah'm expectin' the like frae ye, ye ken."—Golf Illustrated.

His Point of View.

"John, dear," queried the young wife, glancing up from the physical culture magazine she was perusing, "what is your idea of a perfect figure?"

"Well," replied her husband, "$100,000 may not be perfection, but it's near enough to satisfy a man of my simple tastes."

The Key to Germany.

Capt. Charles King, the author, praised, at the Milwaukee club, the German element in Milwaukee's population.

"I know a soldier," said Capt. King, "who met the kaiser last year in Berlin.

"'You have a thorough knowledge of our best thought and customs,' said the kaiser. 'Have you ever been to Germany before?'

"'O, yes, sir,' said the soldier.

"'What cities have you visited? Berlin and Hamburg?' asked the kaiser.

"'No, sir,' said the soldier. 'Milwaukee.'"

Take as much pains to forget what we ought not to have learned as to retain what we ought not to forget.—Mason.

Getting a Reputation.

There is a desk in the senate particularly convenient as a place from which to make speeches. It is next to the aisle and almost in the center of the chamber, and affords an opportunity for the speaker to make everybody hear.

At least a dozen senators, according to the Washington correspondent of the St. Louis Star, have borrowed this desk when they had special utterances to deliver to the senate. This led, not long ago, to a mild protest from its legitimate occupant.

"I am perfectly willing to give up my desk," said he, "but I am afraid people will think that the same man is talking all the time. I don't want to get the reputation of constantly filling the senate with words."—Youth's Companion.

All About It.

To appreciate fully this scrap of dialogue, quoted from London Punch, one should see the two odd characters engaged in it. Apparently they parted satisfied, one that he had imparted some real information, the other that he had received some. Said one man:

"D'you recollec' old wot's-'is-name?"

"'Im with the collar?"

"Aye!"

"Wot abaht 'im?"

"'E'ad to go down"—jerk of the head—"you know—they give 'im wot you call it—didn't arf git it, I don't think!"

"Reely!"

"'Adn't you 'eard, then?"

"I did 'ear somefink, but no details, not afore now."—Youth's Companion.

Deserved the Shoes.

The weary wayfarer leaned over the fence and watched the housewife doing her chores.

"Ah, lady," he said, tipping his hat, "I used to be a professional humorist. If I tell you a funny story will you give me an old pair of shoes?"

"Well, that depends," responded the busy housewife; "you must remember that brevity is the soul of wit."

"Yes, mum, I remember that, and brevity is the sole of each of my shoes, mum."

Church Utility.

Richard, aged five, was being interviewed in regard to his school work.

"And where do you go to Sunday school?" was next asked.

"To the Episcopal," he replied.

"What have you learned there?"

"'Honor thy father and thy mother,'" he said. "And do you know, I went down to the Methodist church the other day and they were teaching the same thing there!"—Lippincott's Magazine.

The Exception.

"Doesn't your husband like cats, Mrs. Binks?"

"No, indeed. He hates all cats except a little kitty they have at his club."

If you would be pungent, be brief; for it is with words as with sunbeams—the more they are condensed, the deeper they burn.—Southey.

A catalogue of vices never led any one into virtue.